Amendments to the Specification:

Please amend paragraph **[0029]** as shown below.

[0029] A second method of reducing the rate of evaporative loss of droplets 33 is to heat mold 28, wherein the temperature of mold 28 is raised to a temperature greater than the temperature of wafer 30. As a result, a thermal gradient is created in an atmosphere between ~~template~~ mold 28 and wafer 30. This is believed to reduce the evaporative loss of material 36a in droplets 33.

Please amend paragraph **[0031]** as shown below.

[0031] Referring to Figs. ~~1 and 7~~ 3, 7, and 8, to that that end, one embodiment of radiation system 22 includes dual radiation sources, i.e., radiation source 50 and radiation source 52. For example, radiation source 50 may be any known in the art capable of producing IR radiation. Radiation source 52 may be any known in the art capable of producing actinic radiation employed to polymerize and cross-link material in droplets 33, such as UV radiation. Specifically, radiation produced by either of sources 50 and 52 propagates along optical path 54 toward wafer 30. Typically, mold 28 is disposed in optical path 54 and as a result, is transmissive to both UV and IR radiation. A circuit (not shown) is in electrical communication with radiation sources 50 and 52 to selectively allow radiation in the UV and IR spectra to impinge upon wafer 30. In this fashion, the circuit (not shown) causes radiation source 50 to produce IR radiation when heating of material 36a, shown in Fig. 3, is desired and the circuit (not shown) causes radiation source 52~~, shown in Fig. 7,~~ to produce UV radiation when polymerization and cross-linking of material 36a~~, shown in Fig. 3,~~ is desired. It is possible to employ the requisite composition of material 36a to allow cross-linking employing IR alone or in conjunction with UV radiation. As a result, material 36a would have to be heated with sufficient energy to facilitate IR cross-

linking. An exemplary material could include styrene divinylbenzene, both available from Aldrich Chemical Company, Inc. located at 1001 West Saint Paul Avenue, Milwaukee, WI and Irgacure 184 or 819 available from Ciba Specialty Chemicals, at 560 White Plains Road, Tarrytown, New York 10591. The combination consists of, by weight, 75-85 parts styrene, with 80 parts being desired, 15-25 parts divinylbenzene, with 20 parts being desired, 1-7 parts Iragure, with 4 parts being desired, with the remaining portion of the composition comprising stabilizers to ensure suitable shelf-life.

Please amend paragraph **[0032]** as shown below.

[0032] Referring to Figs. ~~8~~ 9 and 10, in another embodiment, radiation system 22 consists of a single broad spectrum radiation source 60 that produces UV and IR radiation. An exemplary radiation source 60 is a mercury (Hg) lamp. To selectively impinge differing types of radiation upon wafer 30, a filtering system 62 is utilized. Filtering system 62 comprises a highpass filter (not shown) and a lowpass filter (not shown), each in optical communication with radiation source 60. Filtering system 62 may position highpass filter (not shown) such that optical path 54 comprises IR radiation or filtering system 62 may position lowpass filter (not shown) such that optical path 54 comprises UV radiation. Highpass and lowpass filters (not shown) may be any known in the art, such as interference filters comprising two semi-reflective coatings with a spacer disposed therebetween. The index of refraction and the thickness of the spacer determine the frequency band being selected and transmitted through the interference filter. Therefore, the appropriate index of refraction and thickness of the spacer is chosen for both the highpass filter (not shown) and the lowpass filter (not shown), such that the highpass filter (not shown) permits passage of IR radiation and the lowpass filter (not shown) permits passage of UV radiation. A processor (not shown) is in data communication with radiation source 60 and filtering system 62 to selectively allow the desired wavelength of radiation to propagate along optical

path 54. The circuit enables highpass filter (not shown) when IR radiation is desired and enables the lowpass filter (not shown) when UV radiation is desired.

Please amend paragraph **[0033]** as shown below.

[0033] Referring to Figs. ~~3, 4, 6A and 11~~ 2, 3, and 11, in operation, ~~imprinting~~ material 36a is deposited on wafer 30 at step 100. Thereafter, at step 102, mold 28 is placed proximate to droplets 33. Following placing mold 28 proximate to droplets, IR radiation in impinged upon a target, which in the present case is the thermal absorption layer 42, shown in Fig. 6A. Typically, the temperature of material 36a in droplets is increased to provide a desired flow rate. This may be above a glass transition temperature associated with material 36a. After material 36a has been heated to a desired temperature, contact is made between mold 28 and droplets 33 at step 104. In this manner, material 36a is spread over wafer 30 and conforms to a profile of mold 28. At step 106, material 36a is transformed into material 36c, shown in Fig. 4, by exposing the same to actinic radiation, e.g. UV radiation, to form imprinting layer 40, shown in Fig. 5. If cooling of material ~~34a~~ 36a is desired, this may be accomplished through any method known in the art, such as natural convection/conduction through the wafer chuck or enforced convection/conduction with nitrogen (N_2) gas or a chilled substrate chuck. Further, cooling may occur before or after solidification of material 36a. Thereafter mold 28 and imprinting layer 40, shown in Fig. 5, are spaced-apart at step 108, and subsequent processing occurs at step 110.

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